



**BOSE McKINNEY & EVANS LLP**

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**PATENT APPLICATION**

***IN THE UNITED STATES PATENT AND TRADEMARK OFFICE***

Group: Unknown  
Atty. Docket: 15268-0008  
Applicants: Stamper et al.  
Invention: HALO ORTHOSIS  
Serial No.: 10/689,318  
Filed: October 20, 2003  
Examiner: Unknown

**Certificate Under 37 C.F.R. § 1.8(a)**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

on November 6, 2003

*Brenda Vandever*  
Brenda Vandever

Dated: November 6, 2003

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This statement is filed in the application identified above pursuant to 37 CFR §§ 1.56, 1.97 and 1.98. Applicants call attention to the art references within the knowledge of applicants and their attorney which are listed on the attached PTO Form 1449. No representation is intended that a complete search has been made or that no better art references are available. The filing of this statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to the patentability as defined in 1.56(b).

The listed references were submitted or cited during prosecution of parent U.S. Application Serial No. 09/776,526 filed February 2, 2001 which is relied upon for an earlier effective filing date under 35 U.S.C. §120. Therefore, copies of these references are not required pursuant to 37 C.F.R. §1.98(d).


### REMARKS

None of the art cited on the attached PTO Form 1449 is believed to disclose or suggest the invention recited in the claims of the above-identified application. It is therefore believed that the claimed invention is patentably distinguishable over these references.

Please charge any fees that might be due in connection with this Information Disclosure Statement to Bose McKinney & Evans LLP's Deposit Account No. 02-3223. An extra copy of this Information Disclosure Statement is enclosed for that purpose.

Respectfully submitted,

BOSE McKINNEY & EVANS LLP



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Registration No. 42,884

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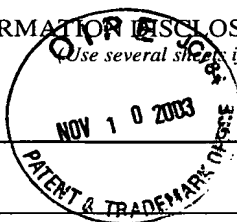
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FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY DOCKET NO. 15268-0008	SERIAL NO. 10/689,318
<b>INFORMATIONAL DISCLOSURE STATEMENT</b> <i>(Use several sheets if necessary)</i>		APPLICANT Stamper et al.	
		FILING DATE October 20, 2003	GROUP Unknown



U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPLICABLE
	AA	2,706,982	04/26/1955	Hale et al.			
	AB	3,072,118	01/08/1963	Standerwick			
	AC	3,099,441	07/30/1963	Ries			
	AD	3,604,412	09/14/1971	Gardner			
	AE	4,444,179	04/24/1984	Trippi			
	AF	4,541,421	09/17/1985	Iversen et al.			
	AG	4,620,530	11/04/1986	Lanier et al.			
	AH	4,667,660	05/26/1987	Eingorn			
	AI	4,735,196	04/05/1988	Krag et al.			
	AJ	5,042,462	08/27/1991	Bremer			
	AK	5,062,415	11/05/1991	Weatherby et al.			
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AL						
	AM						
	AN						
	AO						
	AP						
	AQ						
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AR	Bernardoni CO, Gene, "The Halo Part I," <a href="http://www.ballert.com">http://www.ballert.com</a>					
	AS	Bernardoni CO, Gene, "Part II Application of the Halo to the Patient," <a href="http://www.ballert.com">http://www.ballert.com</a>					
	AT	Bernardoni CO, Gene, "Part III Problems Which May Arise With Halo Fixation," <a href="http://www.ballert.com">http://www.ballert.com</a>					
EXAMINER				DATE CONSIDERED			
<small>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>							

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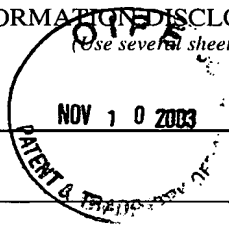
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPLICABLE
	BA	5,109,835	05/05/1992	McDonald			
	BB	5,156,588	10/20/1992	Marcune et al.			
	BC	5,171,296	12/15/1992	Herman			
	BD	5,203,765	04/20/1993	Friddle, Jr.			
	BE	5,261,873	11/16/1993	Bremer et al.			
	BF	5,378,042	01/03/1995	Daneshvar			
	BG	5,456,266	10/10/1995	Brown			
	BH	5,537,704	07/23/1996	Dinkler			
	BI	5,624,387	04/29/1997	McGuiness			
	BJ	5,674,186	10/07/1997	Guigui et al.			
	BK	5,697,895	12/16/1997	Bremer			

FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	BL							
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	BO							
	BP							
	BQ							

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)			
	BR	Bernardoni CO, Gene, "Part IV A Clinical Review of the Use of the Halo," <a href="http://www.ballert.com">http://www.ballert.com</a>	
	BS	Bernardoni CO, Gene, "Part V Major Available Halo Systems," <a href="http://www.ballert.com">http://www.ballert.com</a>	
	BT	Botte, Michael J. et al., "The Halo Skeletal Fixator (Principles of Application and Maintenance)," <u>Clinical Orthopaedics and Related Research</u> , No. 239 Feb. 1989.	
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	CA	5,961,528	10/05/1999	Birk et al.			
	CB	5,984,836	11/16/1999	Casali			
	CC	6,179,846	01/30/2001	McFadden			
	CD						
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FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES NO
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	CN						
	CO						
	CP						
	CQ						

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)		
CR		Fleming, Braden C., et al., "Pin Loosening in a Halo-Vest Orthosis," SPINE Vol. 25, No. 11, pp 1325-1331, published in 2000 by Lippincott Williams & Wilkins, Inc.
CS		Ballock, R. Tracy, et al., "The Effect of Pin Location on the Rigidity of the Halo Pin-Bone Interface," Vol. 26, No. 2, 1990, <u>BioMechanics of Halo Pin Fixation</u> , February 1990.
CT		Voor, Micheal J. and Cyna Khalily, "Halo pin loosening: a biomechanical comparison of experimental and conventional designs," <u>Journal of Biomechanics</u> , 1998.

EXAMINER	DATE CONSIDERED
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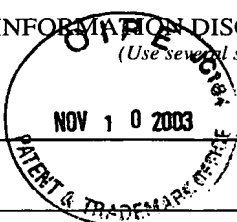
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OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)							
	DR	Nickel, V., et al., "The Halo: A Spinal Skeletal Traction Fixation Device," <i>Clinical Orthopaedics and Related Research</i> , No. 239, February 1989.					
	DS	Fleming, Braden C., et al., "Pin force measurement in a holo-vest orthosis, <i>in vivo</i> ," <i>Journal of Biomechanics</i> , Vol. 31, 1998, 647-651.					
	DT	S. Liu, et al., "The Effect of Local Halo Pin Care Reagents on Cranial Radia Compressive Stress (When Tightening Halo Pins)," <i>Journal of Prosthetics and Orthotics</i> , Vol. 5, No. 3, 67-72, 1993.					
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	EQ							

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)		
ER		Botte, M., et al., "Application of the Halo Device for Immobilization of the Cervical Spine Utilizing an Increased Torque Pressure," <i>The Journal of Bone and Joint Surgery</i> , Vol. 69, No. 5, 1987.
ES		Letts, M., et al., "Mechanical Evaluation of Four-Versus Eight-Pin Halo Fixation," <i>Journal of Pediatric Orthopaedics</i> , Vol. 17, 121-124, 1997.
ET		Garfin, S., et al., "Structural Behavior of the Halo Orthosis Pin-Bone Interface: Biomechanical Evaluation of Standard and Newly Designed Stainless Steel Halo Fixation Pins," <i>Spine</i> , Vol. 11, No. 10, 1986

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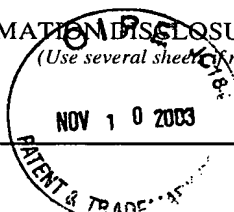
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)			
FR		Vertullo, Christopher J., et al., "Pin-Site Complications of the Halo Thoracic Brace With Routine Pin Re-	
		Tightening," <i>Spine</i> , Vol. 22, No. 21, pp. 2514-2516	
FS		Tsai, L. and Stamper, R., "A Parallel Manipulator with Only Translational Degrees of Freedom"	
		<i>Proceedings of the 1996 ASME Design Engineering Technical and Computers in Engineering Conference</i> , MECH: 1152, 1996	
FT		Bullock, Stacy J. and Runciman, R. John, "Biomechanical evaluation of two halo pin design, with, and without,	
		intact periosteum", <i>Journal of Biomechanics</i> , 2001, pp. 129-133.	

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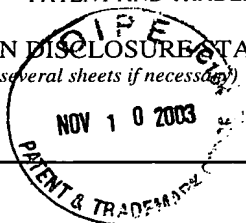


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	GL						
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OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)							
	GR	Triggs, Kevin J., MD, et al., "The Effect of Angled Insertion on Halo Pin Fixation," <u>Division of Orthopaedics and Rehabilitation, University of California</u> , 1988.					
	GS	Norton, Robert L., <u>Design of Machinery</u> , 2 <sup>nd</sup> Edition, McGraw-Hill, copyright 1999, ISBN: 0-07-048395-7, pp. 28-32.					
	GT	Tsai, Lung-Wen, <u>Mechanism Design: Enumeration of Kinematic Structures According to Function</u> , CRC Press, copyright 2000, ISBN: 0-8493-0901-8, pp. 66-70.					
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	HN						
	HO						
	HP						
	HQ						
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)							
	HR	PMT Corp., Halo Systems, PMT Model 1233, <a href="http://www.pmtcorp.com/halo.htm">http://www.pmtcorp.com/halo.htm</a> .					
	HS	Tsai, Lung-Wen, <u>Robot Analysis – The Mechanics of Serial and Parallel Manipulators</u> , John Wiley and Sons (1999), pp. 9-15					
	HT	Norton, Robert L., <u>Design of Machinery – An Introduction To The Synthesis and Analysis of Mechanisms and Machines</u> , McGraw-Hill (1999), Section 2.7					
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